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考案者　前田哲男　大阪府北河内郡門真町大字門真1006 松下電器産業株式会社内

出願人　松下電器産業株式会社　大阪府北河内郡門真町大字門真1006

代理人 弁理士　吉崎悦治 外1名

（全2頁）

切替表示装置

図面の略解

第1図は本案の切替表示装置の正面図、第2図は同側面図、第3図および第4図は表示板の正面図である。

実用新案の説明

本案は異種の色に着色して、それぞれ異種の表示記号を設けた2枚の透光性表示板を対着し、該表示板のそれぞれの色に等しい2個の表示用着色電球を表示板に対応させ、該表示用着色電球を交互に点灯して二つの表示内容を同一面に表出し得る切替表示装置にかかり、ラジオ受信機における周波数帯域の切替、音質の切替あるいは単に開閉を表示するような例えばドアーの表示用等に採用して有用なものである。

従来の切替表示装置はほとんどが機械的動作を伴うもので、構造が複雑化し、また着色電球によるものもあるが、個々に表示板を対応させ、表示場所が移行するものであり、場所的に難点があり意匠的にも満足できないものであつた。

本案はかかる従来の装置の欠点を解消し、表示装置の切替表示による意匠的な効果も新しい分野に開発しようとするものである。以下図面と共に本案を説明すれば、1は一つの種類の表示記号2を残し、他を例えば赤色に着色して着色層3を設けた透光性表示板、4は透光性表示板1に対着し該透光性表示板1の表示記号2と異なる他の種類の表示記号5を残し、他を前記透光性表示板1の着色層3と異なる例えば青色に着色して着色層6を設けた透光性表示板、7，8は該透光性表示板1，4に対応して設け、それぞれ透光性表示板1，4の着色層3，6に等しい着色光を出す表示用着色電球であり、該表示用着色電球7，8は適当な切替スイツチに接続し、切替スイツチの操作により交互に点滅するものである。なお、透光性表示板1，4はガラス、合成樹脂等により成形し表示記号2，5と着色層3，6とがほぼ同じ透光率を示すように表示記号2，5を乳白色とし、また着色層3，6にも連続して全面つや消加工を施し、乱反射面とし、前面の透光率の均一化を図つたものである。

次に本案の作用を説明する。今透光性表示板1，4の着色層3，6をそれぞれ赤と青に着色し、表示用着色電球7，8も従つて赤と青の電球に決定し、さらに透光性表示板1を着色電球7，8側に面して装着した場合において、まず赤色の着色電球7を点灯すると、赤色の着色層3を有する透光性表示板1は全面から均等な赤色光を透過し、青色の着色層6を有する透光性表示板4に達するが、該赤色光は着色層6を透過せず、表示記号5のみから前方に赤色光が透過し、従つて表示記合5が赤色で表示される。次に赤色の着色電球7を消灯し、青色の着色電球8を点灯すれば、青色光は赤色の着色層3で遮蔽され、表示記号2からのみ透過して透光性表示板4に達するが、該透光性表示板4は全面にわたつて均等に青色光を透過するため結局表示記号2が青色光で表示される。なお、透光性表示板1，4の対着位置は前記と反対になつても同様の表示がなされる。また着色層3，6の色は前記したような赤と青のごとく互いに補色の関係にあるような区別しやすい色に決定して極めて明瞭な表示を得ることができる。

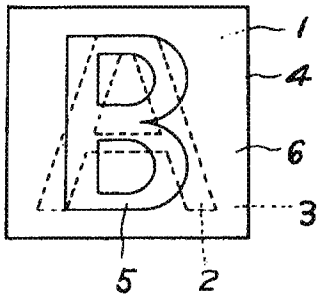
以上のごとく本案によれば、単なる着色電球7，8の切替えによつて同一面上に二つの異なつた内容の表示が行えるために、場所的に制約を受けず、構造は簡単で確実な表示が得られ、しかも二つの表示記号2，5が異種の着色光によつて表示されて、意匠的にも美麗であり、ラジオ受信機における周波数帯域の切替表示、音質の切替表示、その他ドアーの開閉表示等に採用して大きな実用的効果を挙げ得るものである。

登録請求の範囲

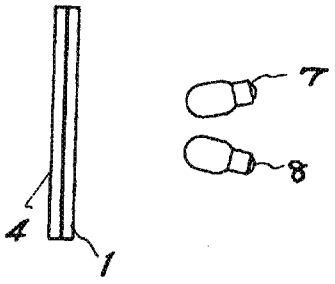
図示のごとく、着色層3，6によりそれぞれ表示記号2，5を設けた透光性表示板1，4を対着し、該着色層3，6の色にそれぞれ等しい表示用

着色電球7，8を前記透光性表示板1，4に対応　して設けた切替表示装置の構造。

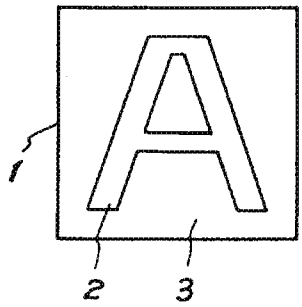
第1図



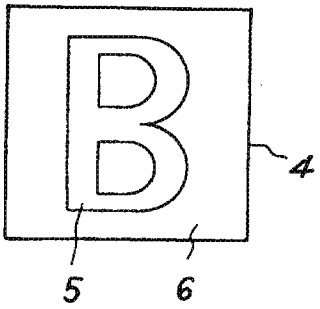
第2図



第3図



第4図



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Inventor: Tetsuo MAEDA
Agent: Patent Attorney, YOSHIZAKI et al.

SWITCHABLE DISPLAY APPARATUS

Brief Description of the Drawings

Fig. 1 is an elevation view of a switchable display apparatus of the present device, Fig. 2 is a side view of the same, and Fig. 3 and Fig. 4 are each an elevation view of a display plate.

Description of the Device

The present device relates to a switchable display apparatus that is able to display two of display contents on an identical plane in a manner in which two sheets of transparent display plate, which are tinted in different colors and are provided with different display symbols, are attached to each other, two pieces of display-use tinted bulb, the colors of which are equivalent to those of the

display plates, respectively, are provided so as to be correspondent with the display plates, and the display-use tinted bulbs are alternately lighted, and is of great usefulness when employed for indication of switching frequency bands or sound qualities in a radio receiver, or for indication of just open/close of, for example, a door, or the like.

Conventional switchable display apparatuses have mostly been attended with mechanical action, which has caused complicated structures, and although there have been ones provided with colored bulbs, they have to be ready for individual display plates and their displaying places are movable, so such conventional apparatuses have had a location-related drawback and have also been unsatisfactory from design point of view.

The present device is one that resolves such a drawback of conventional apparatuses, and the design effect due to the switchable display of the display apparatus is to develop into a new field. The present device will be described with reference to the attached drawings; reference numeral 1 denotes a transparent display plate having a display symbol 2 of one kind remained as it is and is provided with a tinted layer 3 by coloring the other with, for example, a red color, reference numeral 4 denotes a transparent display plate, which is attached onto the

transparent display plate 1, having a display symbol 5 of another kind different from the display symbol 2 of the transparent display plate 1 remained as it is and is provided with a tinted layer 6 by coloring the other with, for example, a blue color, being different from the tinted layer 3 of the transparent display plate 1, reference numerals 7, 8 are display-use tinted bulbs that are provided so as to be correspondent with the transparent display plates 1, 4 and emit light of tinted colors equivalent to those of the tinted layers 3, 6 of the transparent display plates 1, 4, respectively, and the display-use tinted bulbs 7, 8 are ones that are connected to an appropriate switch and alternately blink by actuation of the switch. Incidentally, the transparent display plates 1, 4 are formed of glass, plastic, or the like so as to have the display symbols 2, 5 that are each tinted with a milky color so that the display symbols 2, 5 and the tinted layers 3, 6 give an almost identical transmittancy with each other, and further, the tinted layers 3, 6 are each continuously applied with all-over frost treatment to provide a diffusion surface with an intention of uniformizing the transmittancy on the front surface.

Next, the operations of the present device will be described. Now, in the case that the tinted layers 3, 6 of the transparent display plates 1, 4 are tinted with a red

color and a blue color and accordingly the display-use tinted bulbs 7, 8 are decided to be a red colored bulb and a blue colored bulb, respectively, and further when installed so as the transparent display plate 1 faces to the side of the display-use tinted bulbs 7, 8, in the first place, when the display-use tinted bulb 7 of the red color is lighted up, red colored light evenly passes through all over the transparent display plate 1 having the tinted layer 3 of the red color and reaches the transparent display plate 4; however, the red colored light does not pass through the tinted layer 6, but passes forward only through the display symbol 5, so the display symbol 5 is displayed with the red color. In the second place, when the display-use tinted bulb 7 of the red color is extinguished and the display-use tinted bulb 8 of the blue color is lighted up, blue colored light is intercepted at the tinted layer 3 of the red color and passes only through the display symbol 2 to reach the transparent display plate 4; however, since the transparent display plate 4 allows blue colored light to evenly pass through all over the plane thereof, the display symbol 2 is displayed with the blue color after all. Incidentally, even though the positions of the transparent display plates 1, 4 to be attached with each other are opposed to the above described, a similar display is provided. Moreover, an extremely clear display can be obtained by specifying the

tinted layers 3, 6 to have distinguishable colors, which are in a relation of complementary colors to each other as with red and blue as described above.

According to the present device, as described above, since two displays having different contents are able to be provided on an identical plane only by switching the display-use tinted bulbs 7, 8, the switchable display apparatus is free from locational constraint, provides a reliable display with a simple structure, and furthermore looks smart; therefore, the apparatus will be of great usefulness when employed for switching display of frequency bands or switching display of sound qualities in a radio receiver, or for indication of just open/close of, for example, a door, or the like.

Claim

A structure of a switchable display apparatus in which transparent display plates 1, 4 are attached to each other as illustrated in the drawings, the transparent display plates 1, 4 being provided with display symbols 2, 5 by means of tinted layers 3, 6, respectively, and display-use tinted bulbs 7, 8, the colors of which are equivalent to those of the tinted layers 3, 6, respectively, are provided so as to be correspondent with said display plates 1, 4.